



# System Verification and Validation Plan for RoCam

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## Revision History

Date	Version	Notes
Date 1	1.0	Notes
Date 2	1.1	Notes

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## 2 General Information

### 2.1 Summary

### 2.2 Objectives

### 2.3 Challenge Level and Extras

### 2.4 Relevant Documentation

[Author](#) (2019)

## 3 Plan

### 3.1 Verification and Validation Team

### 3.2 SRS Verification

### 3.3 Design Verification

### 3.4 Verification and Validation Plan Verification

### 3.5 Implementation Verification

### 3.6 Automated Testing and Verification Tools

### 3.7 Software Validation

## 4 System Tests

### 4.1 Tests for Functional Requirements

#### 4.1.1 Area of Testing1

Title for Test

1. test-id1

Control: Manual versus Automatic

Initial State:

Input:

Output:

Test Case Derivation:

How test will be performed:

2. test-id2

Control: Manual versus Automatic

Initial State:

Input:

Output:

Test Case Derivation:

How test will be performed:

#### **4.1.2 Area of Testing2**

...

### **4.2 Tests for Nonfunctional Requirements**

#### **4.2.1 Area of Testing1**

**Title for Test**

1. test-id1

Type: Functional, Dynamic, Manual, Static etc.

Initial State:

Input/Condition:

Output/Result:

How test will be performed:

2. test-id2

Type: Functional, Dynamic, Manual, Static etc.

Initial State:

Input:

Output:

How test will be performed:

#### **4.2.2 Area of Testing2**

...

## 4.3 Traceability Between Test Cases and Requirements

# 5 Unit Test Description

## 5.1 Unit Testing Scope

## 5.2 Tests for Functional Requirements

### 5.2.1 Module 1

#### 1. test-id1

Type:

Initial State:

Input:

Output:

Test Case Derivation:

How test will be performed:

#### 2. test-id2

Type:

Initial State:

Input:

Output:

Test Case Derivation:

How test will be performed:

#### 3. ...

### 5.2.2 Module 2

...

## 5.3 Tests for Nonfunctional Requirements

### 5.3.1 Module ?

#### 1. test-id1

Type:

Initial State:



Input/Condition:

Output/Result:

How test will be performed:

2. test-id2

Type: Functional, Dynamic, Manual, Static etc.

Initial State:

Input:

Output:

How test will be performed:

### 5.3.2 Module ?

...

## 5.4 Traceability Between Test Cases and Modules

## References

Author Author. System requirements specification. <https://github.com/...>, 2019.

## **6 Appendix**

This is where you can place additional information.

### **6.1 Symbolic Parameters**

The definition of the test cases will call for SYMBOLIC\_CONSTANTS. Their values are defined in this section for easy maintenance.

### **6.2 Usability Survey Questions?**

## Appendix — Reflection

The information in this section will be used to evaluate the team members on the graduate attribute of Lifelong Learning.

The purpose of reflection questions is to give you a chance to assess your own learning and that of your group as a whole, and to find ways to improve in the future. Reflection is an important part of the learning process. Reflection is also an essential component of a successful software development process.

Reflections are most interesting and useful when they're honest, even if the stories they tell are imperfect. You will be marked based on your depth of thought and analysis, and not based on the content of the reflections themselves. Thus, for full marks we encourage you to answer openly and honestly and to avoid simply writing "what you think the evaluator wants to hear."

Please answer the following questions. Some questions can be answered on the team level, but where appropriate, each team member should write their own response:

1. What went well while writing this deliverable?
2. What pain points did you experience during this deliverable, and how did you resolve them?
3. What knowledge and skills will the team collectively need to acquire to successfully complete the verification and validation of your project? Examples of possible knowledge and skills include dynamic testing knowledge, static testing knowledge, specific tool usage, Valgrind etc. You should look to identify at least one item for each team member.
4. For each of the knowledge areas and skills identified in the previous question, what are at least two approaches to acquiring the knowledge or mastering the skill? Of the identified approaches, which will each team member pursue, and why did they make this choice?